

AMENDMENTS TO THE CLAIMS

Claims 1-11 cancelled.

12. (New) A palladium catalyst consisting of a support and

from 0.05 to 2.0% by weight, based on the supported catalyst, of palladium and from 0.035 to 5.2% by weight, based on the supported catalyst, of lanthanum,

or

from 0.05 to 2.0% by weight, based on the supported catalyst, of palladium, from 0.02 to 1.0% by weight, based on the supported catalyst, of titanium and from 0.0002 to 7.4% by weight, based on the supported catalyst, of potassium,

or

from 0.05 to 2.0% by weight, based on the supported catalyst, of palladium, from 0.035 to 5.2% by weight, based on the supported catalyst, of lanthanum and from 0.0001 to 0.065% by weight, based on the supported catalyst, of silicon.

13. (New) A process for preparing a palladium catalyst according to claim 12 which comprises impregnating a support in tetra amine palladium hydroxide aqueous solution followed by drying and calcination and impregnating the support with precursor solutions containing precursors of the further metals.

14. (New) A process according to claim 13, wherein the Pd-La-, Pd-Ti- catalyst is prepared by impregnating the Pd-catalyst in corresponding precursor solution followed by drying and calcination.

15. (New) A process according to claim 14, wherein a Pd-Ti-K-catalyst is prepared by impregnating the Pd-Ti-catalyst in potassium precursor solution followed by drying and calcination.

16. (New) A process according to claim 13, wherein a Pd-La-Si-catalyst is prepared by Si-CVD on a Pd-La-catalyst, pre-reduced at 350 to 700°C, followed by oxidation at room temperature.
17. (New) A process according to claim 13, wherein the producing of the catalysts includes the reduction process at 300 to 600°C for 1 to 5 hours.
18. (New) A process according to claim 13, wherein the La-precursor is lanthanum nitrate hydrate and the titanium precursors are chosen from a group consisting of $\text{Ti}(\text{O-iPr})_2(\text{DPM})_2$, titanium ethoxide, titanium oxide acetylacetonate and titanium butoxide.
19. (New) A process according to claim 15, wherein the K-precursor is potassium nitrate.
20. (New) A process according to claim 16, wherein the Si-precursor is selected from the group consisting of tetrahydrosilane, triethylsilane, tripropylsilane and phenylsilane.
21. (New) A continuous process for the selective hydrogenation of acetylene to ethylene in the presence of a catalyst according to claim 12, wherein 0.5 to 2.0% by weight of acetylene in ethylene/acetylene gas mixture is used, the reaction temperature is 30 to 120 °C and the flow rate of the gas mixture is 200 to 2500 ml/min×g catalyst.
22. (New) The method of using a palladium catalyst as defined in claim 12 in the selective hydrogenation of acetylene.